

## CLAIM REVISIONS

1. (original)<sup>1</sup> A computer method, comprising executing at least the following operation in at least one data processing device:

    establishing a mapping from lists and scalars corresponding to at least one data source into XML elements and attributes.

2-6 (cancelled)

7. (original) The method of claim 1, wherein the data source is a relational database.

8-9. (cancelled)

10. (original)<sup>1</sup> The method of claim 1, further comprising executing the following operation in the data processing device:

    expressing the mapping in constructs of a mapping language.

11-15 (cancelled).

16. (previously presented)<sup>2</sup> The method of claim 90, wherein the constructs comprise at least one of a value specification and a binding specification.

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<sup>1</sup> Returned to original form after amendment in prior amendment

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17-18 (cancelled).

19. (previously presented)<sup>2</sup> The method of claim 90, wherein

- at least one of the constructs comprises at least one parameter;
- the at least one of the constructs is adapted so that a value of the at least one of the parameters is determinable at a time of generation of at least one respective XML element associated with the at least one of the constructs.

20 (cancelled)

21. (previously presented) The method of claim 19 further comprising

- producing an XML document based on the mapping; and
- passing the value to the parameter.

22. (previously presented)<sup>2</sup> The method of claim 90, further comprising executing the following operation in the data processing device: associating values and or formulas with the DTD.

23-24 (cancelled)

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<sup>2</sup> Returned to original scope after prior amendments

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25. (original) The method of claim 22, wherein the associating includes associating one or more lists of data objects or formulas producing data objects with each DTD construct having a repetition symbol at the end.

26 (cancelled)

27. (previously presented) The method of claim 25 comprising:

- producing an XML document using a medium embodying a result of the associating; and responsive to performing the associating operation.

28. (original) The method of claim 22, wherein the associating includes associating one or more lists of data objects or formulas producing data objects with each DTD construct which is not a #PCDATA, a choice list, or an attribute list, and does not end with a repetition symbol.

29 -30 (cancelled)

31. (original) The method of claim 22, wherein associating includes associating a value or formula producing a value with each PCDATA, choice list, or attribute definition.

32-33 (cancelled)

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34. (original) The method of claim 22, wherein associating includes, not necessarily in the following order:

- first associating one or more lists of data objects or formulas producing data objects with a DTD construct;
- second associating at least one of the lists or formulas with at least one variable name; and
- using the variable name as a parameter in at least one other formula.

35-36. (cancelled)

37. (original) The method of claim 1, further comprising executing the following operation in the data processing device: associating at least one respective environment with a respective XML element to be generated.

38-39 (cancelled)

40. (original) The method of claim 37, wherein the at least one environment comprises

- information from a parent XML element of the respective XML element; and
- information from a binding specification of a DTD construct associated with the respective XML element.

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41-42 (cancelled)

43.(original)<sup>1</sup> The method of claim 37, wherein

- the mapping includes at least one respective specification corresponding to at least one respective XML element;
- the specification comprises at least one parameter for receiving a value upon generation of an XML document; and
- the method further comprises, upon generation of an XML document, sending the at least one parameter a value according to at least one variable/value pair in the at least one respective environment.

44-75 (cancelled)

76. (currently amended) The method of claim 1,

wherein

☐the at least one data source comprises multiple heterogeneous data sources; and

☐the method further comprises

- using a pre-established DTD corresponding to the multiple heterogeneous data sources;
- and

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- based on the DTD and the multiple heterogeneous data sources, adding annotations to the DTD to create an annotated DTD, such that an XML document generated from the annotated DTD is guaranteed to conform to the DTD.

77-83 (cancelled)

84. (previously presented) The method of claim 1, wherein the mapping is responsive to a user mapping specification.

85 -86 (cancelled)

87. (previously presented) The method of claim 1, wherein the at least one data source comprises at least two data sources, and the data sources are of different types.

88 -89 (cancelled)

90. (previously presented) The method of claim 10, further comprising executing the following operation in the data processing device: inserting the constructs into a DTD to create an annotated DTD.

91-96 (cancelled).

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97. (previously presented) The method of claim 90 where an annotated DTD comprises machine readable code embodied on a machine readable medium, the code comprising

- a DTD relating to an XML format; and
- annotations inserted into the DTD relating to a data source format.

98. (new) The method of claim 1, further comprising executing additional operations, the additional operations comprising

- embodying the mapping in a machine readable form within the data processing device;
- using the mapping to generate an XML document from the data source, the XML document being embodied in a machine readable form.

99. (new) A computer method, comprising executing operation in at least one data processing device:

first maintaining, on at least one medium, at least machine readable embodiment of a data source, the data source comprising lists and scalars,

second maintaining, on at least one medium, a machine readable embodiment of a mapping of the lists and scalars into XML elements and attributes, and

using the mapping to generate, on at least one medium, a machine readable embodiment of an XML document corresponding to the data source and responsive to the mapping.

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100. (new) The method of claim 99, wherein the machine readable embodiment of the mapping comprises a DTD with inserted constructs of a mapping language distinct from the DTD.